

REMARKS

The Office Action dated February 22, 2007 has been received and carefully noted. The above amendments to the claims, and the following remarks, are submitted as a full and complete response thereto.

Claims 1, 8, 15-17, 22, 27 and 28 have been amended to more particularly point out and distinctly claim the subject matter of the invention. No new matter has been added. Claims 1-28 are submitted for consideration.

Claims 1, 8, 15, 16 and 28 were rejected under 35 U.S.C. 101 on the grounds that the claimed invention is directed to non-statutory subject matter. Claims 1, 8, 15, 16 and 28 have been amended to overcome the rejection. Therefore, Applicants request that the rejection be withdrawn.

Claims 1-28 were rejected under 35 U.S.C. 102(e) as being anticipated by U.S. Patent No. 6,643,260 to Kloth. The rejection is traversed as being based on a reference that neither teaches nor suggests the novel combination of features clearly recited in claims 1-28.

Claim 1, upon which claims 2-7 depend, recites a method including receiving a packet and determining a number of tokens in a token bucket. The method also includes calculating a probability for marking the received packet with a precedence level when the number of tokens in the token bucket are between a first threshold and a second

threshold and marking packet for a particular forwarding treatment using at least one token bucket.

Claim 8, upon which claims 9-14 depend, recites a packet marking system including a receiving engine capable of receiving a packet for marking. The system also includes a marker engine, communicatively coupled to the receiving engine, capable of determining the number of tokens in a token bucket. The system further includes a probability engine, communicatively coupled to the marker engine, capable of calculating a probability for marking the received packet with a precedence level when the number of tokens in the token bucket are between a first threshold and a second threshold. The marking engine is configured to mark packet for a particular forwarding treatment using at least one token bucket.

Claim 15 recites a computer-readable medium having stored thereon instructions for a processor to execute a method. The method includes receiving a packet, and determining a number of tokens in a token bucket. The method also includes calculating a probability for marking the received packet with a precedence level when the number of tokens in the token bucket are between a first threshold and a second threshold and marking packet for a particular forwarding treatment using at least one token bucket.

Claim 16 recites a system including means for receiving a packet and means for determining a number of tokens in a token bucket. The system also includes means for calculating a probability for marking the received packet with a precedence level when the number of tokens in the token bucket are between a first threshold and a second

threshold. The system further includes means for marking packet for a particular forwarding treatment using at least one token bucket.

Claim 17, upon which claims 18-21 depend, recites a method including receiving a packet and determining a number of tokens in a first token bucket. The method also includes determining a precedence value for marking the packet based on the determined number of tokens. The method further includes upgrading the determined precedence value to a higher precedence value when a pre-specified number of previously received packets were marked with the same determined precedence value and marking packet for a particular forwarding treatment using at least one token bucket.

Claim 22, upon which claims 23-26 depend, recites a packet marking system including a receiving engine capable of receiving a packet and a marker engine, communicatively coupled to the receiving engine, capable of determining a number of tokens in a first token bucket and capable of determining a precedence value for marking the packet based on the determined number of tokens. The system also includes an upgrade engine, communicatively coupled to the marker engine, capable of upgrading the determined precedence value to a higher precedence value when a pre-specified number of previously received packets were marked with the same determined precedence value. The marking engine is configured to mark packet for a particular forwarding treatment using at least one token bucket.

Claim 27 recites a computer-readable medium having stored thereon instructions to execute a method. The method includes receiving a packet and determining a number

of tokens in a first token bucket. The method also includes determining a precedence value for marking the packet based on the determined number of tokens and upgrading the determined precedence value to a higher precedence value when a pre-specified number of previously received packets were marked with the same determined precedence value. The method further includes marking packet for a particular forwarding treatment using at least one token bucket.

Claim 28 recites a system including means for receiving a packet and means for determining a number of tokens in a first token bucket. The system also includes means for determining a precedence value for marking the packet based on the determined number of tokens. The system further includes means for upgrading the determined precedence value to a higher precedence value when a pre-specified number of previously received packets were marked with the same determined precedence value and means for marking packet for a particular forwarding treatment using at least one token bucket.

As outlined below, the cited reference of Kloth does not teach or suggest the all of the elements of the pending claims.

Kloth discloses a content addressable memory (CAM or L3 Table) contains flow information for each active flow of packets passing through a given node of a data communications network. The CAM has associated with each entry (corresponding to each active flow) a packet counter, a byte counter, a token bucket and a contract value. Each flow is assigned one of a plurality of output queues and optionally at least one

output threshold value. A token bucket algorithm is employed on each flow to determine whether packets from that flow exceed the contract value. Such packets may be dropped or optimally modified to reflect an alternate output queue and/or alternate threshold before being sent to the selected output queue for transmission from the node. In another aspect an access control list CAM (ACLCAM) contains masked flow information. The ACLCAM provides an index to internal token bucket counters and preconfigured contract values of an aggregate flow table which becomes affected by the packet statistics. In this way flows are aggregated for assignment of output queues and thresholds, possible dropping and possible modification of packets. In another aspect the CAM contains active flow information, the ACLCAM and the aggregate flow table are combined in one system and used to produce in parallel a pair of traffic rate limiting and prioritizing decisions for each packet. The two results are then resolved to yield a single result. See at least the Abstract of Kloth.

Applicants submit that Kloth does not teach or suggest each of the elements of the pending claims. Each of the pending claims, in part, recites calculating a probability for marking the received packet with a precedence level when the number of tokens in the token bucket are between a first threshold and a second threshold. Kloth does not teach or suggest this feature. Although the cited sections of Kloth does teach that each class has a high threshold and a low threshold, the cited sections of Kloth teaches that for average queue depths between the high and low values, packets are randomly dropped.


Contrary to the teachings of Kloth, in the present invention as recited in the claims, packets are not randomly dropped. Instead, in the presently pending claims, a probability for marking the packet is calculated. There is no teaching or suggestion in the cited section of Kloth of calculating a probability for marking the received packet with a precedence level. Furthermore, there is no teaching or suggestion in Kloth that the packets are marked with a precedence level when the number of tokens in the token bucket are between a first threshold and a second threshold. Instead in Kloth, the packets are randomly dropped if the average queue depths is between the high and low values. Thus Applicant respectfully asserts that the rejection under 35 U.S.C. §102(e) should be withdrawn because Kloth fails to teach or suggest each feature of claims 1, 8, 15-17, 22 and 27-28 and hence, dependent claims 2-7, 8-14, 18-21 and 23-26 thereon.

As noted previously, claims 1-28 recite subject matter which is neither disclosed nor suggested in the prior art references cited in the Office Action. It is therefore respectfully requested that all of claims 1-28 be allowed and this application passed to issue.

If for any reason the Examiner determines that the application is not now in condition for allowance, it is respectfully requested that the Examiner contact, by telephone, the applicants' undersigned attorney at the indicated telephone number to arrange for an interview to expedite the disposition of this application.

In the event this paper is not being timely filed, the applicants respectfully petition for an appropriate extension of time. Any fees for such an extension together with any additional fees may be charged to Counsel's Deposit Account 50-2222.

Respectfully submitted,



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